USGS
science for a changing world

Earthquake
Shaking

**Green
Alert**

GSN
ANSS

USAID
FROM THE AMERICAN PEOPLE

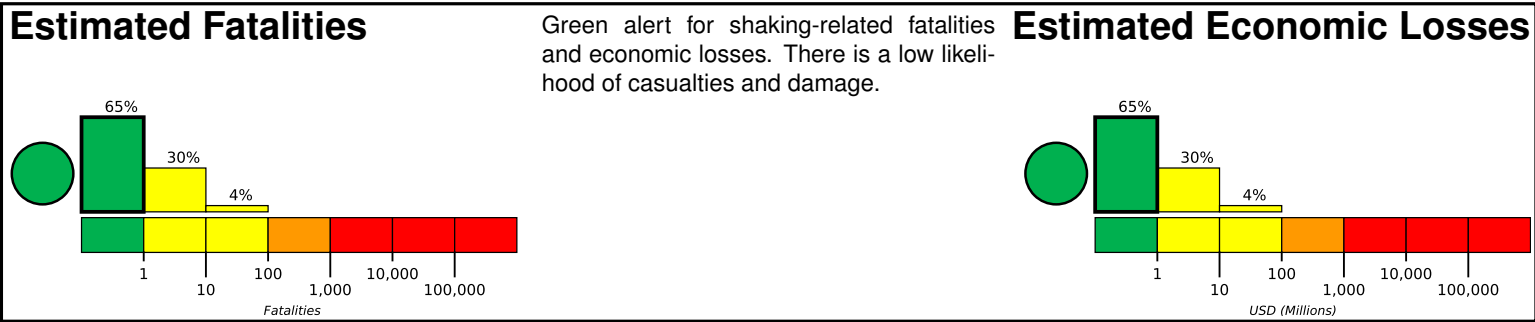# M 4.0, 163 km E of Cape Canaveral, Florida

Origin Time: 2024-02-08 03:48:07 UTC (Wed 22:48:07 local)
Location: 28.5574° N 78.9438° W Depth: 10.0 km

**PAGER
Version 3**

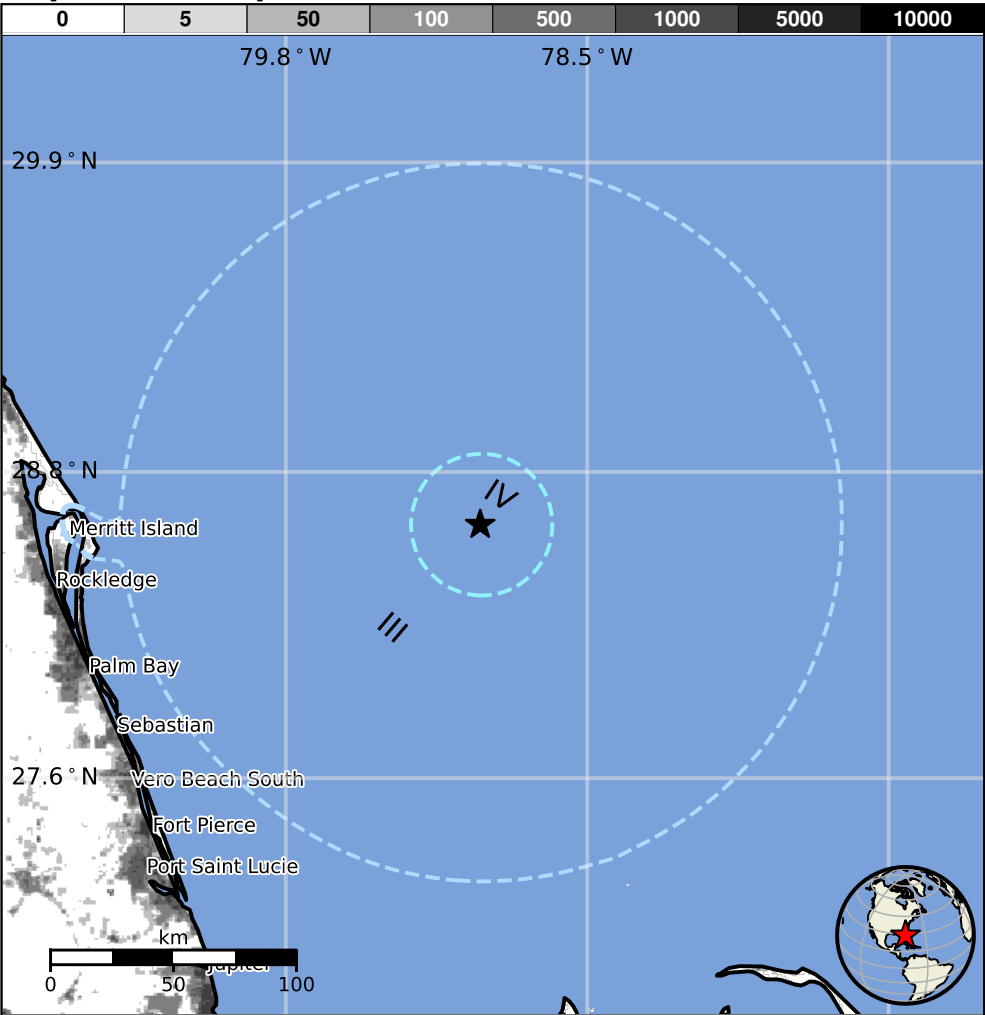Created: 2 hours, 8 minutes after earthquake

Estimated Fatalities

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

65%
30%
4%

1   10   100   1,000   10,000   100,000
Fatalities

Estimated Economic Losses

65%
30%
4%

1   10   100   1,000   10,000   100,000
USD (Millions)

Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		—*	1,698k	0	0	0	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per 1 sq. km from Landscan

0	5	50	100	500	1000	5000	10000

Structures

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are unreinforced brick masonry and reinforced masonry construction.

Historical Earthquakes

There were no earthquakes with significant population exposure to shaking within a 400 km radius of this event.

Selected City Exposure

from GeoNames.org

MMI	City	Population
III	Cape Canaveral	10k
III	Cocoa Beach	11k
II	Oak Hill	2k
II	Roseland	1k
II	**Merritt Island**	**35k**
II	Mims	7k
II	**Palm Bay**	**103k**
II	Melbourne	76k
II	**Port Saint Lucie**	**165k**
II	**Jupiter**	**55k**
II	Palm Beach Gardens	48k

bold cities appear on map.   (k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage.
Limitations of input data, shaking estimates, and loss models may add uncertainty.
https://earthquake.usgs.gov/earthquakes/eventpage/us7000lxp2#pager

Event ID: us7000lxp2